

COMMENT ON STEYSKAL'S NOTE ON PHYTOMYZA
HORTICOLA GOUREAU AND P. SYNGENESIAE (HARDY)
(DIPTERA, AGROMYZIDAE)¹

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Steyskal (1969) has published a note in which he suggests that the above species can be separated on some criteria additional to those stated in my revision of the *Phytomyza syngenesiae* group (Griffiths 1967). These additional criteria are: (1) that the tip of the epiphallus is acutely projecting in *syngenesiae*, but not in *horticola*; (2) that the hypandrial arms are bifurcate at their point of articulation with the epandrium in *syngenesiae*, but not in *horticola*; (3) that the telomere ("surstylus") protrudes somewhat further in *syngenesiae* than in *horticola*; and (4) that the posterior spiracles of the puparium are more strongly projecting in *syngenesiae* than in *horticola*. I have checked these suggested criteria, and can confirm none of them.

Steyskal's figures 1A and 2A do not show the epiphallus and associated sclerites in a comparable position. In *Phytomyza* the epiphallus ("proepiphallus" of Steyskal) articulates with a pair of lateral sclerites which are turned outwards when the aedeagus is swung into its posteriorly directed copulatory position; consequently the area posterior to the aedeagus base then loses its pointed appearance. Steyskal's first criterion seems based on his mistaking this positional change for a difference between species. The other criteria are differences between particular preparations, not diagnostic of species.

The correct identification of these species is important for economic entomologists, as well as for taxonomists. I therefore feel obliged to

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comment publicly on Steyskal's note, since it can only mislead those without a specialized knowledge of agromyzid taxonomy. To the best of my knowledge the reliable diagnostic criteria for species of the *Phytomyza syngenesiae* group remain substantially as set out in my 1967 revision. An independent check on my findings, with useful supplementary data (mostly statistical), has since been provided by von Tschirnhaus (1969).

LITERATURE CITED

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2.0136 Comment on Steyskal's note on *Phytomyza horticola* Coureau and *P. syngenesiae* (Hardy) (Diptera, Agromyzidae).

ABSTRACT.—Additional criteria for distinguishing *Phytomyza horticola* from *P. syngenesiae* suggested by Steyskal (Ent. News 80:301-303) have not been confirmed.—GRAHAM C. D. GRIFFITHS, Department of Entomology, University of Alberta, Edmonton, Alberta.

Descriptors: Diptera; Agromyzidae; *Phytomyza horticola*, distinguishing features; *Phytomyza syngenesiae*, distinguishing features.